



Lord Iain Vallance

Interviewed by

Richard Sharpe

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Welcome to the Archives of Information Technology where we capture the past and inspire the future. It is Tuesday, 3rd July 2018. I'm Richard Sharpe and I've been analysing and writing about the IT industry since the early 1970s. Today we're in Pimlico, London, in the home of Lord Vallance. And Lord Vallance had an illustrious career in first of all the GPO and then what became British Telecom, both a public and a private organisation, and also a networking organisation.

So Lord Vallance, where were you born?

I was born in Kent, on 20th May 1943, in a way by mistake. Not that my birth was by mistake, but I happened to be in Kent because my mother had come down from Scotland as my father was about to go to the Far East and he happened to be stationed around there at that time.

So really you're of Scottish lineage?

Yes. That's the way I think of myself, certainly.

Hence your title as a Baron, of life peer of Tummel in Perth and Kinross.

Yes, Tummel is a loch in Highland Perthshire and my mother's family come from Highland Perthshire and in a way I feel that's my home rather than Kent.

What did they do?

Ah, well they were both in the GPO. My mother took civil service exams, the clerical exams, from a sort of small village in Highland Perthshire by Glen Lyon and was immediately sent down to London, as one would do at that time. And my father was the first of his family to go to university, he went to Bristol, and was sent when he joined in the telecommunications side to Birmingham on the traffic side of telecommunications at that time. They both ended up in Scotland, they- my father pursued my mother for a long while and eventually got her to marry him on 2nd September, 1939, the day after war broke out, with a special licence because he'd

already got his commission and might have been going anywhere. So eventually she succumbed, so I owe my being, in a sense, to Hitler. [laughs]

And in your blood you have the GPO, the General Post Office?

That's very true and in that time, in the early days, and indeed the time when I originally joined the GPO, it was in a way a family business. A lot of people had either parents or aunts or uncles or whatever who were in the business. I had an uncle as well, for example. And that was quite interesting later on when it came to the big changes that we had to deal with.

[02:59]

So you went into Scotland for your first education?

Ha ha. My education was very mixed. Yes, I started off at the Edinburgh Academy which was a very good school indeed, then at the age of ten, my parents moved down to London, my father was working in the home counties part of the GPO at the time. They decided to take me with them, I got into Dulwich College, which at that time was going through the Dulwich Experiment, which meant it creamed off the people with the best eleven-plus results south of the river, including north of Kent and Surrey and so on. And the big deal was to push you as hard as they could to take your exams as soon as you were able. So I did my O levels at the age of thirteen, rather than later on. Then, to make life more complicated when my father and mother moved up north again to Scotland, I went to a school called the Glasgow Academy, had to go back to the Scottish system of education at that time and well, I had a great time there.

Did you enjoy school?

I enjoyed school thoroughly, yes. Each of the three stages. The second one, moving from Scotland down to Dulwich as a ten year old was tricky to begin with, but no, they were great fun. I had all the lucky things, so I was school captain, captain of rugby and all that kind of thing, so great joy.

Is it, do you think, a coincidence that quite a few of the people in our archives came through Dulwich?

Er, that probably isn't. It depends how old they are, but if they were on the experimental side, which at that period, I'm not surprised. It was a real hothouse and it produced some very bright people.

Then you went to Oxford?

Yes, I went to Oxford where I read English, which was a completely different sort of thing. Enjoyed that one too. And after that, I had a job lined up in the States, in TV journalism, which is what I wanted to do, but it was at the time of the Vietnam War and just before I was going over there, they changed the immigration rules to insist that aliens like myself would be liable for the draft to Vietnam. So, I decided not to do that and came back to the UK. I'd taken the civil service exams beforehand, the method 2 stuff for graduates, and when I came back there were only two things left. That was the tax people, HMRC and the GPO, so I thought well, why not try the GPO for a bit, after all it seemed okay for my parents. So that was quite happenstance that I came into the General Post Office.

[0:05:55]

In 1966.

Yeah.

And you've come into the General Post Office, which in European terms would be called a PTT, the Post, Telegraph and Telephone authority, state owned, state regulated, no competition, apart from a little competition from Hull. Not really competition, you do their work for them, basically. Nobody else allowed into your domain.

Yeah. And I started off on the postal side, not on the telecommunication side, unlike my father. So, [laughs] how did it all go? Well, I really enjoyed being out looking at what people were doing on the ground. You know, that was the thing that intrigued

me big time to begin with. And then they were very kind to me and they sponsored me to go to the London Business School to do an MBA. In fact it was called an MSc at that time, so I was away for two years. And then I thought well, as they've sponsored me, I suppose I'd better go back, because it wasn't necessarily what I wanted to do, but I felt there was that obligation. I was the, ran this office of Sir William Ryland, who was the Chairman of the GPO at that time. Then when the next Chairman came...

So you were his...

Oh, well I did the sort of PA type job. So that was- at that point you could see an organisation from the very top, which was intriguing.

[0:07:30]

What did it look like from the very top?

Er... ooh. A jungle. You know, huge complications where the postal side, I mean they didn't just do letters and parcels, but of course there was the National Giro, there was a bank there as well, and telecommunications was a great mystery, it was a very different kind of animal from the other network, because the postal service is also a network. So it was fascinating to see [laughs]. An alien culture in many ways. But I was very lucky, when I came back from business school I got a nice job in finance, I then went to the central headquarters again, became, I think it was Director of Central Finance and Accounting at some absurdly young age. Then the first time I went to telecommunications, to that side of the business, was in, ooh, it must have been 1978.

Yes.

Where I was Director of Central Finance Planning. There was only one accountant in the whole of telecommunications at that time, but because I'd done an MBA at least I knew something about finance. So that was my introduction.

Now, the GPO at that time was an institution which touched, almost, well everybody's lives.

Everybody, yeah.

It delivered letters, it took letters and sent them anywhere on a universal service with a universal stamp rate, and parcels. You went to the GPO office to get the larger parcels, but also as well, to get your money orders, your postal orders, as they were called, and sent them off. You got your stamps from there, you got your pension from there, you got whatever social security payments from there. And as well you may well have a telephone with perhaps a shared line which would be in the hallway, would it not?

Yes, and it would be black.

And it would be black, and it would be completely wired in, and you'd better not try and do anything with it, apart from use it for the telephone calls. So that it was touching everybody's lives.

Absolutely. And was, of course a great monopoly and an institution. And I come back to what I was saying earlier on, that a lot of the people were family members of the GPO. And it had some enormous strengths. I mean if you look at Martlesham and the R&D capability, which had a very significant impact during the Second World War in terms of whether we won it or not. No, it was an amazing institution all round.

[0:10:17]

People like Tommy Flowers coming out of Martlesham Heath.

Exactly so. But it had passed its sell-by date. All institutions at some stage or another, their inherent weaknesses overtake their strengths, and it had reached that point. And so when I was there it moved from civil service into a public corporation and then, of course, later it separated the telecommunications from the postal side, and then there was the privatisation. One thing to remember though, that there's a thing here in London of course, not very far away from here, called the BT Tower, okay, which was previously the Post Office Tower. Actually, that of course was done during the time of the GPO. Now, I don't know myself whether a private sector

organisation would have had the imagination or the guts or the risk appetite to do that. So sometimes when one looks at the supposed great difference in culture between the public and the private, there are things which are in common if you've got very bright people who are enthusiastic about what they're trying to do. And I always love to see the old GPO Tower, because that is perhaps one of the greatest symbols in London of IT.

It shows my age, I still call it the Post Office Tower.

Good.

And here is this magnificent structure right in the middle of London, built as a centre for the microwave network.

Yes.

To get over all the skyscrapers and all the big buildings around London, and have a restaurant at the top which revolved.

It did indeed, and unfortunately it got an IRA bomb and then it was closed. Although it's now still used for BT occasions and one or two other things.

[0:12:14]

So this is, you were two years as Director of Central Finance for the Post Office side, then '78, you moved to be Director of Telecommunications Finance.

Planning, yes.

Finance Planning.

Planning.

So you were looking at, what are the capital demands of this company now, moving forward into a digital age.

Ah, well.

And you were presumably projecting some significant capital expenditures were going to be required.

Yeah, I mean there were huge capital expenditures which, the total amount was negotiated by the Treasury of course at that time. I suppose my concern was that we were on the cusp of the digital, you know, System X was sort of there, but we were spending a vast amount of money on TXE4, which was a hybrid and which was never going to be there for the digital age in the long run. So I was intrigued about how one did the sort of financial appraisal for that kind of hybrid network.

So you were moving from electromechanical switching into hoping to go to complete digital switching. And that was System X, which was being developed for the GPO by GE, General Electric, and Plessey. But in the middle you wanted another box, which is a hybrid electromechanical and a computer switch.

Well, that was an engineering choice and not one of the finance department, put it that way. [laughs]

Why did they have to make that choice?

Why did they have to? Because I don't think they had the risk appetite of moving immediately to digital, to System X, and, you know, who am I to try to double-guess them? But that was the fact, that we moved, as you say, from the old switching-wonderful apparatus, that superb sound as you went into a telecommunications exchange, the sort of *whirr, click click click, whirr, click click*, going on all the time. It was wonderful. The next time I heard that was when the Berlin Wall came down and Siemens moved back to see exchanges that it made, and there was one in, still, one of the pre-war exchanges rattling away in – where was it? It was in Leipzig. And you got the same *rrrrr, boom*. [laughs]

[0:14:49]

So, you were Director of Telecommunications Finance Planning in '79 and System X came out in 1980. So you were really there pretty well for that launch. Do you think, looking back, that you really got value for money from those lenders?

Yeah, I think we probably did, if we're talking about the original lenders.

Yes.

Er, yes. I mean this was on the cusp of something new, you know, how could you value it, you didn't really know how important it was. But that move towards digital switching, of course was perhaps the most significant thing of all, because before then, computing was computing, but I remember at the business school, when we were doing stuff then, yeah, it was cards with little punched holes in them, it was Fortran IV, you know, wonderful stuff. But it wasn't networked and it was the networking bit which is, I think, the fundamental change. And we were part of that, that revolution, having moved through packet switching in the meantime, of course.

[0:16:02]

Also came up with a very interesting piece of technology called Prestel.

Ah, yes. Well, Prestel [laughs], Prestel, hm. Well, that could of course, could have been the great breakthrough and we used Prestel ourselves internally, but it got overtaken by things from the other end of the pond, as you know. We didn't have perhaps the marketing clout to be able to make the most of it.

Can you describe Prestel for the archives?

Oh no. Oh no, no. That's far too far back to remember it. But I do remember very well that when we used it internally, because I was going to be a TV journalist at the beginning of my career, I taught myself to touch-type, and that made all the difference, that I was better placed to deal with this thing than almost anybody else in the management team.

It was a Viewdata system.

It was indeed, yes.

Which was using GPO lines and had GEC computers behind it, I believe.

That's right.

And this is the UK GEC, not General Electric Corporation. General Electric Company, Arnold Weinstock's company, and you would amass data there, things like timetables for railways and so on and so forth.

Yeah.

Yeah. And it was really quite revolutionary for its time. Did it work? It seemed to work.

It seemed to work, but it was a bit clunky and, you know, a little bit of clunkiness can stop things quite easily and it was obviously overtaken by the internet in due course.

[0:17:37]

Right. And in, it was sold by, in '94, although you launched it in '81. Let me ask you a more general question, given your experience right at the top of BT and also of course early on in the guts of the organisation, do you think that BT has been well served by its investments in research and development at Martlesham Heath?

Hm. Well, that goes back a long way, a very long way indeed. I think I would say yes, it has been well served, but perhaps more importantly, the industry as a whole has been well served by Martlesham. Not all of the benefits of Martlesham have gone directly into BT. More recently, it'll be more focussed and will be NPT, but if I look back at the first times I went to visit Martlesham, there were things going on, for example, in optoelectronics. I mean there were leading-edge things going on in optoelectronics at that time and the benefit has moved right out of BT, right across the world for the things that were done. So it's like that, it was just a fount of very good

research. It wasn't necessarily just D, you know, there was R there as well, and private corporations don't tend to do that much R, they tend to be on the D. It's usually the universities that do the R. But there was a sort of slight university feel about Martlesham. It was partly its position, it was there out in Suffolk, you know, it had its own culture and its own pace, which was different. No, it and its predecessors I think have done the UK very proud and beyond the UK.

When you're mentioning optics there, you're mentioning the switch from sending signals down a wire into sending signals down fibre...

Yeah.

Which is so much faster.

Well, yes, it's so much faster. And no doubt we'll come later on into why haven't we got to total fibre network here in the UK by now.

[0:20:03]

Right. You then moved to be Director of Materials for two years.

Yes.

What did that mean?

That meant doing the purchasing and supply of everything but the switching. So it was procurement job. And it was a wonderful mess. [laughs] And my predecessor, the chairman, George Jefferson, said, well somebody's got to sort this out, why don't you go and sort it out. And I was very lucky, I was allowed to have offices which were actually on the – where were they – they weren't in the main offices of BT at all, they were elsewhere in London. I was able to pick a team of about half a dozen youngish people and a couple of older people who knew what they were doing, and we completely changed – I won't bother you with the detail – but we completely changed the way in which the procurement was done. It had been tribal, there were different little bunches of engineers and this, that and the other doing their own thing,

we brought it together into a modern system. One of the interesting things was that team, a number of members of that team, were highly instrumental later on in much bigger changes within BT.

How did you manage to overcome the tribal nature, because that type of inbred culture is very difficult to crack.

Yeah, well you do it... ah. Let me look at it a bit later, because within the materials department, yeah, there were things you could do and we did do, but partly that was bringing in young people. Because if you want to change an inbred set-up, then bringing in youngsters is a very good way of acting as a catalyst for change, so that was important. Later on it was changes in systems. It was going for total quality management and total quality management is a great way of dealing with tribalism, because each of the tribes has to have a specified relationship between them as to what they're going to deliver when and how, so it's all internal contractual and that does tend to break down the walls that have been built up in decades.

That was a two-year job?

Yeah, that one was.

[0:22:38]

You seem to be moving on quite quickly.

[laughs]

Here is an organisation, which I imagine both sides of it, both postal and telecommunications, would spot people and you weren't necessarily moving of your own volition, I would have thought, there's a certain way in which there's a hand, to an extent, moving you. Do you feel that?

Yes, I mean it was the Chairman, Chairmen at the time who did it. They were doing actually at their level what I'd been doing in the materials department, which was taking somebody very young and giving them a rein, enough rein to try and shift

things, they had enough manoeuvrability to shift things. And so when I got to the board the first thing that I was allowed to do was a rather odd word, it was called BMOBS, Board Member for Organisation of Business Systems, because it was that that was required, changes in the whole architecture of the place and the systems that supported that architecture, which were critical at that point.

And so now BT was recognising we have some internal issues that we really must sort out?

Yes.

[0:23:54]

What were they?

[laughs] You tell me what they weren't. [laughs] Well, organisationally, let's just stick within the UK to begin with, organisationally you had a regional set-up, was ten regions and you had, I think it was 61 areas, and you had a trunk network. That was the basic thing, there was overseas as well. But that was the basic structure. The regions were not adding value. The separation of the trunk from the local was an artificial separation. The structures at the area level were basically engineering structures, the sort of difference between the engineers, the operators, this, that and the other. They weren't aligned to what the customers were about at all. You didn't make any real difference between residential and business customers at that time, the system was pretty well common. So, we decided that we would need to more or less scrap it. I'm just talking organisation, we'll go into systems in a moment. Scrap it and take out all the regional stuff, that we would have what were called areas and districts rather than areas, and there were only 20-odd of those, rather than 61 of the rest. That they would have a common structure, which was actually driven by customer type rather than by the engineering side of things, and that to make all that work we would tackle all the systems from scratch in a programme called the CSS, which was Customer Service Systems. And that was the biggest civil computing project in the world at that time, and we were helped very much by Logica, it was Logica who played the game.

Logica, one of, Philip Hughes is a contributor to the archives.

It was Philip Hughes's, yes, yes. You'll see that there are Philip Hughes's paintings. That's another story. But, yes, it was indeed one of his big contributions. Because a lot of this stuff was manual, you know, it was on paper. And a lot of it was inaccurate, which didn't help very much. But we designed it by the people, big input from the people who were actually doing the jobs. In other words, this was not an IT department imposing something upon an organisation, this was an organisation where you had teams of people who knew exactly what the interfaces were between themselves and the customers, between different elements of BT, who were helping to design the systems themselves. So it was a big reversal. And something that I learnt, it was a very useful lesson for me later on to have learnt, if you want to drive an IT system, you drive it from the bottom, you don't drive it from something up at the top.

[0:26:55]

Logica was doing the intellectual heavy lifting for you on design, who was your main supplier?

Oh, well, oh gosh, I'm glad you asked that question. [laughs] There was of course a political question here. There was a push for ICL with its open systems, that was a governmental push. There was another, I can't remember the name of it, but ICL were also producing something that looked like and smelt like an IBM, okay? Our feeling was that given the risks that were involved in the applications themselves, to take a risk as to the computers together was a step too far. So our view was that we should go down the IBM route, but that ICL of course would be totally open to provide its IBM lookalike to us. And that was quite a barney, yeah.

And you had to push that through government?

We had to push that through government, indeed, and I was helped very much by a non-executive on the board, Sir George MacFarlane, whom the government took probably more seriously than me. So yes, we got that through government. It was the sort of back end of the pre-privatisation, but that kind of relationship, that kind of item would of course not go to government at all once we were privatised.

[0:28:30]

You're an independent organisation now, called BT, you recognise that you've got customers rather than people at the end of a telephone line, you're organising your organisation around those customers, segmenting the marketplace to an extent. There's still very little competition, a little bit of competition from 1981 from IBM with a private automated branch exchange. How did you welcome or not that type of competition?

I don't think we were too worried about competition, frankly. Competition was quite fun. I mean I wasn't around in that type of job in 1981, I mean the IBM stuff was earlier on. But the movement out into private networks was fine. And in part, of course, later on we managed private networks, which was an important bit of getting into competitive markets outside the UK once that happened. So I don't think we were particularly fussed about competition. And then of course the cable television companies came along later on. And of course there was then, yes, there was another, yeah, beyond Hull which didn't amount to much. There was of course the other network.

[0:29:48]

And in '84, privatisation.

Privatisation, yes, mm.

The big bang.

That was a big bang, that was very interesting.

No longer answerable to government, although government still has some degree of shareholding.

Yes.

But answerable to the collection of shareholders, many of whom are the usual suspects, the pension funds and so on and so on. And here you are now reporting to them, not you personally yet, but here is the organisation reporting to them and having to think about, oh, we've got shareholders rather than a Minister.

Yes, indeed. The Minister also had a golden share, the government had a golden share, but there were real restrictions in the Telecommunications Act as to how that could be used. Yes, it was a different kind of game altogether and the other interesting thing, of course, that it was one of the most widely held shares. In other words, the employees had vast numbers of these shares, individuals in the UK had vast numbers of these shares. Even in other parts of the world. I remember going to Tokyo on the roadshow for this where the most widely held share, apart from NTT, in Japan was BT for a while. It was quite a do. [laughs] And the roadshows were wonderful fun, mm.

[0:31:18]

And this allowed other people to venture their own capital into it?

Yes.

And we have something which is called the share, and we therefore possibly have something called, the dividend.

We do indeed.

And we have something that we have to keep feeding our shareholders their dividends, otherwise they do not become very happy bunnies. You moved into Director of Operations in 1985.

I was Chief of Operations, yeah. COO. It was one under the CEO, as it were.

Right, Chief of Operations, excuse me, in '85, which is one year after privatisation. What was that role really?

Well, actually it was during privatisation as I recall. I can't- let me get it right. I was COO, I'm sure, during the roadshows for privatisation. I then, I think, became CEO a year after and then did the combined job when George Jefferson left. But, so you were in effect running it. While George Jefferson was there, he was an executive Chairman, so he was, as it were, the CEO and the Chairman combined. And underneath that I was first of all the Chief of Operations, then I became CEO and he became, as it were, just a Chairman, over a fairly short period.

And here you are in 1985, Chief of Operations, and the next year also become Chief Executive. You're 43!

Yeah, yes.

This is quite meteoric.

Well, in those days, yes, it was very meteoric. But remember, I'd been on the board since I was 38, so that was in a way even more meteoric. Yeah. Just as well, I think, you probably needed somebody with youth and resilience to take on what the job was at that time, which was quite intriguing. And we also had, well, what shall I say? We also had to deal with trade unions – do you want to talk about that?

Certainly.

[0:33:19]

I'll come back to other bits of culture in the meantime, but of course this was an organisation which had house unions, and the old POEU in particular, the Post Office Engineering Union. And the organisation was, in many ways, constrained by a rule book, or a series of rule books, which had been negotiated over time. And they were books, they were in paper. And one of our objectives was to do away with the rule books and try and start afresh. The trade unions (a) didn't like the idea of privatisation and (b) were not particularly keen in the potential changes in service agreements between ourselves and the employees where we needed more flexibility, we thought we needed that. And there were two strikes. The second one was perhaps the more interesting one, which was about the potential of privatisation. And for a

while we ran the network with management only. Now, that didn't get much into the public eye, but it was a very intriguing face-off between employer and employee. The way in which the union worked was to have, there were guerrilla strikes in different parts of the UK and we had a process called black-holing, where we encouraged more and more people to leave and come out, as it would be a drain on the finances of the trade union, we were actually trying to pay significantly their employees who were out. So black-holing went on for quite a while and I can remember one of the non-executives on the board saying, well, you know, if this goes wrong, what's the downside? And I had to say, well the downside is that the City of London will begin to crumble, because as the network deteriorated that was going to go into trouble, the emergency services would begin to crumble, that big slugs of our national defence services would begin to deteriorate as well, because we did a lot for them as well. Now, the interesting thing was, had we been in the public sector, we would have had Downing Street and everybody else all over us every morning reporting in what we were doing, and so on, so forth. We did not hear a squeak from government while this was going on. Remember, it was quite soon after the miners' strike stuff and frankly, the downside of the miners' strike was minimal by comparison to what would have happened had the BT network gone down at that time. So we ran the thing as well by locking people out actually, at the end of the day, until the trade unions' finances became impossible, and then we took the foot right off the accelerator and went into friendly mode and we came to an agreement. And we did some good things, I think, in terms of symbolism. One of the things that they had to do, because their finances were so bad, was they had this wonderful POEU band, a brass band, and they were going to disband the band. Only we took it on and it became the BT band and we made sure that it played before every AGM from then on. So there were little things of that sort that mattered. The other thing was, while we're at it, and it's one of the things I'm most proud of, that when it came to the big reduction of employees, which was largely a result of the digital game, far fewer people were needed to maintain switches, operator services completely disappeared at the end of the day. There were more than 100,000 people that eventually had to come out of this organisation. And we did it without any industrial action and all by voluntary redundancy and not by compulsory redundancy. And we set up all sorts of things for retraining people, keeping them on temporarily while they were finding other things to do. But before then, and this comes back to the point I was making about the

family, the GPO family, I did a roadshow with one or two of my colleagues in all the major cities in the UK explaining why we had to do this and what we were going to do, and thousands of people would turn up to these roadshows, and they were – oh, what’s his name? Radio 4 presenter. John, John, the Welshman. John, John, John... Who’s the guy who does the Radio 4 *Today* programme?

Humphrys.

Humphrys, yes, my old mind is going a bit blank. John Humphrys was the compere of these things and we went round the country talking to thousands of people about why and how. And I mean these were not necessarily terribly friendly things, but they seemed to draw the poison and as a result we were able to do it with the help of the trade union. And if I contrast that with what went on in the miners’ strike, that is chalk and cheese. But it was doable because I was from the GPO family and my parents were from the GPO family, and therefore I had credentials which somebody who’d been brought in from outside, as was the miners’ thing, would just not have had.

It was the family thing and you were able to say that to them, and I’m sure you did at every meeting.

That’s right. Yeah, that’s exactly right, yes.

[0:39:36]

So, basically for the next fifteen years after being established as Chief Executive, you’re either Chairman and Chief Executive, or then you become Chairman for the – we’re talking now about fifteen years. In the early part of that period, a whole group of people called the computer industry hammering on your door, saying for god’s sake, give us lines, give us communication, give us transmission.

Yes.

BT failed to really respond to that adequately.

I think it was a combination of the regulatory system and BT. Whether it would have been avoidable, I don't know. Now, what do I mean by that? The regulator had a quite sensible objective of encouraging competition. Now, there are two ways of doing that, you can just encourage them positively or you can put shackles on the monopoly provider. And there were shackles on the monopoly provider. We were not allowed to put, for example, entertainment across our network, we were not allowed to compete with the cable television people in that way. And so when it came to saying right, well what is the likely return that we're going to get from putting in not just lines, but particularly fibre optics, then the return was heavily constrained because we didn't know at all how this stuff was going to be used because we had no control of putting stuff over it ourselves. Now, I think that was, whether that was the wrong thing or right thing to do, I wouldn't want to judge, because you've got competing, as it were, regulatory aims. Are you trying to produce something which in the long run might be a good deal for the customers, or are you trying to promote competition in the short run. Not an easy one and I wouldn't want at all to challenge Sir Bryan Carsberg who was the Oftel boss at the time. I think he did a very good job and we're still good friends. But not an easy call to make. That was one of the difficulties that we did not invest as much as we would have done had we had freedom to use our own network to a greater extent than we were allowed.

[0:42:04]

You also had a direct challenge from a little company, but with some big backing, called Mercury.

Yes, yes indeed.

Actually Mercury boxes, telephone boxes. Mercury laying cable around London, Mercury using an old cable network, some ex-sewer networks or something, wasn't it?

Yeah.

To run cables. And here they were, going head-to-head with you.

Yeah, that was good. I don't think there was, again, any major issues there. I mean Mercury were allowed to do things perhaps that we weren't necessarily allowed to do in the same way, as indeed later on, not just the cable companies, but the cellularly companies were- perhaps come to that later on too. But no, there was no sort of inherent feeling at the top of BT which said, well, we want to stuff competition because it's a bad thing. What we did see was the inevitability that we were going to lose market share in the UK. Either because there were people who could compete better than us, had better product, better services, or because the regulation would make sure that that happened. Therefore, we had to look to the future for growth outside the UK, that was the key thing. And that was the real hard one. Do you want to hear about that one?

[0;43:26]

Yes, of course. Because what you're doing now is basically entering into the backyard of all these other PGTs.

That's right. Now, first of all there was Europe. Europe was a closed shop. All PGTs, nothing privatised, all monopolies. One of the things we did was to proselytise privatisation. I mean there was a close European club of the big players of France and Germany, Italy, Spain, latterly The Netherlands. And we all knew each other and we would go away once a year and chat and talk things over and this, that and the other.

And you'd meet in the ITU, the International Telecommunications Union?

Well, that too, but this is perhaps more interesting because it was the European market, which is the one next door. And so we kept on saying, well come into the bath, you know, the water's warm, it's good. [laughs] And eventually, of course, they did. But that would not have happened, I don't think, had it not been for BT and my team and myself going and saying look, it's something that you really ought to do, it is worth doing. The first bit of competition in Europe was BT, surprise surprise, and IBM. IBM had a private network, as you would expect for in-mail across Europe. IBM was then run by Mike Armstrong in that part of, in Europe, who was eventually the boss of AT&T later on. And we persuaded Mike, just get your tiny toe into the water, perhaps allow us to manage a couple of circuits in Germany. And he did, and

he was a gutsy sort of guy. But that of course all helped, because that was the first bit of competition that had ever taken place in Europe. Then on the other side of the Atlantic, of course, was the other bit that we needed to look at, America. Now, in America there was some competition. AT&T had been broken up at that time, there were the Baby Bells and AT&T was just long distance and international. The Baby Bells were quite competitive in their own way, but they were more like BT's in a way, they were stuck in a particular geography and so on. There were other long distance players: MCI and Sprint, MCI being the number two and Sprint being the number three. You could also get some competition by buying private networks. So we bought McDonnell Douglas's private network, which had a great extent across the States. The final bit of competition was mobile, where the Baby Bells had one mobile licence and others were being allowed to bid for individual licences within Baby Bell areas, and the one that had been most successful and had the greatest extent was McCaw Cellular. So, we had this sort of dream that just as you had to start somewhere in Europe, even if it was only a couple of circuits, maybe we could do something in the States. Maybe we could reproduce something that looked a little bit like AT&T but its local stuff would be done by cellular and its long distance would be done partly through the purchase of private network, but partly we hoped by partnership and investment in one of the alternative long distance players, namely MCI. And the idea, the dream was to put those together and it would, if the dream had come about, been quite extraordinary, because you would have had a mobile network for the local, which is effectively what's happening anyway, but you would have had a competitive long distance and international network as well. The international scene would have been important too, because international telecommunications was a stitch-up. You mentioned the ITU, it was a monopoly game where everybody had a half circuit across the Atlantic, or whatever it might be, and a deal between the two which kept the prices up. So international calls were very, very high because it was this international stitch-up. If you had, across the Atlantic on the other hand, a network which could bust the ITU set-up, because it would be end to end across the Atlantic, then that would make a huge difference. So the dream was, can you put McCaw Cellular and a relationship with MCI together to compete against AT&T. That dream failed because, largely, of regulation in the States. You were constrained as to the amount of owner, share ownership you could have in any company that had the radio bandwidth. And that went back to Marconi in the First

World War, but that was part of the regulations. And so you could only have a minority shareholding. I mean later on we got approval to take the totality of MCI after year after year after year of trying to negotiate it through with the FCC, but there we go. And of course AT&T then saw what was coming. And AT&T decided that they would buy McCaw Cellular, we couldn't fight it because we weren't allowed to have more than, I think it was 30% or whatever it was. We made a lot of money out of it, but it put a big hole in the original dream strategy.

[0:49:31]

Did you get the impression that the regulations were there in the United States to stop you?

Erm... let me sidetrack a little. I spent a while as a non-executive on the board of the Mobil Corporation before the Exxon Mobil merger, and I was the only alien on the board, and they went to great trouble to choose somebody who would be non-threatening. It had to be somebody from the UK, speaks the language, had to be somebody in the sort of top ten in the FTSE 100 and had not to be an oil company. Anyway, that was that. So I got to see American companies working from the inside and the relationship between American companies and the state department, because they'd forgotten I was not an American after a while. So my answer, coming back to your first question, is almost certainly. The Americans are very good at defending as well as the other side of it.

[0:50:38]

Yes. And of course, BT by now knows mobile.

Knows a bit about mobile. Cellnet was not as good a player as its main competitor, Vodafone, for various reasons.

Why not?

Why not? Mm. I'm not trying to make excuses, but first of all, we were obliged – again, regulation – to have a minority shareholder in the shape of Securicor, who obviously didn't know anything about telecommunications. I don't know quite how

all that happened, but there it was. And that didn't add a great deal of value to our managerial effort, if I can put it that way. Secondly, and perhaps more importantly, was that Vodafone expanded very quickly in the places where it was allowed in, through using equity. It had a very high P/E ratio and we did not, because basically we were an old utility with a low P/E ratio, so anything that we did had to be cash, which meant that we were slower and eventually it was the reason why BT ran into trouble at the sort of back end of Peter Bonfield's time as CEO.

[0:52:10]

You were made a knight in 1994 in your penultimate year as Chief Executive. When you look at your period of those nine years of being Chief Executive, what would you say was your finest hour?

I think my finest hour, I've mentioned before, I mean I could pick all sorts of things because we did the transition from analogue to digital, we were the first people to compete outside our home territories, we did – I can come later – we were in many ways the first people to use the concept of work to people rather than people to work. I'll touch on that one, then we'll come back, if you like, because it is actually quite important. We used Scotland, home ground, for two experiments. One was Dounreay, the nuclear power station was being closed. There were some really very, very clever people up there. And we thought well, maybe we can take work to them, maybe we can employ them up in so-and-so. And Alan Rudge, who was the head of the, our main techie man at the time, did indeed employ people at the end of a line working for BT from Thurso, whatever it is, six, seven miles away. We also in the Highlands thought, well, operators. Telephone operators in the winter were having to drive all over the place in ghastly conditions to come and work in a telephone exchange in Inverness. So why don't we try and take the work out to them and have their ability to do their job in their home, rather than not. So we experimented with that one.

Which is actually how it started, wasn't it?

Which is how it started, which is how it started. It's funny how things turn the other way round. So the only reason I say that is that we were, one of the things I'm very

proud of is that we were the leading edge of that. I don't know if anybody had done anything quite like that before, which was the concept of taking work to people rather than people to work. But, coming back to, you asked what's the one I'm most proud of, it is – and it's an emotional one – the ability to reduce the numbers of staff in the UK in a humane way. That, I think, is the one thing that I managed to do for the old GPO family.

[0:54:58]

Towards the end of your reign as Chairman, in the year 2000, you were forced to unbundle, as it is called, the local loop. Now, other people could have international connections, other people could have switches, you had something which was then golden, which was that...

Yeah, the last mile.

...what the Americans sometimes called the last mile. That wire that comes from the exchange and goes into that telephone or that PABX, and you were forced to unbundle it in 2001. How did that feel?

I think, again, the caricature of BT was this sort of old-fashioned organisation which was defending its patch all the time. That was not the reality – and I'll go back on that one because it is important – but in this particular case, answering your question, it was not a major issue. The caricature is, it is an important issue. Let me go right to the very beginning. When I was appointed as Chairman after Sir George Jefferson, there was a great political hoo-ha about how can you have an insider appointed to this job, and one of the Ministers, it was Clark, not the Ken Clarke, who's good, it's the one, the deceased Clark, was put in to try and undermine me as soon as possible. I was called to the Treasury to talk to the Permanent Secretary and explain myself, how come I had been appointed to the Chair of BT without consulting their main shareholder. I said, I didn't appoint myself, and if you read the Act, which you should do, you have no rights whatsoever in terms of appointing the Chairman. But that was the background, I was not one of them, decidedly not one of them. I mean I was GPO family, not one of them. And so that started, I think, a bit of a caricature that lasted. I mean what we did, what I did to begin with, I recruited a very considerable number of

senior managers from outside, and particularly from IBM as it so happened. So the thought that this was a sort of stolid old nationalised industry is rubbish. I talked about total quality management earlier on. Now, we were the first big organisation in the UK to take quality management right the way through. We won the European Foundation for Quality Management Awards. I mean that was everything, I mean, Siemens, you name it, b-boom, b-boom. So we were at the top there. So what was seen there, or the projection of the organisation versus what was inside was very different. Now, why did I tell you all about that? But it seemed a good idea at the time. [laughs]

Unbundling.

Unbundling, unbundling. We did...

It was going to come, you had to accept it.

It was going to come. I mean later on – again, I shall digress forwards, but why not? Later on, just before I left BT, my view, although I was only a non-executive part-time Chairman at that time, was what we should do with BT was to accept that what is now Openreach will always be a regulated utility of one kind or another. And to float it off as an independent organisation, which is very highly geared, so they took most of the gearing out and then it would be regulated as a separate thing. And what you would do is you'd keep all the new stuff – and there was a lot of new stuff, including of course, the mobile. As it turned out, just the opposite was done.

[0:58:53]

They spin off the mobile in 2001.

Which was a lunatic thing to do.

You're saying it was a lunatic thing to do?

Yes, absolutely.

I sat there hearing the announcement thinking, they've gone mad.

Yeah. It was something I would imagine that was driven by the City. It was, you know, you could think that you could have this thing which made a lot of money, but it was completely the wrong thing to do, they should have done...

[0:59:13]

And 2001, you personally as now Chairman, not CEO, were under a considerable amount of personal pressure. You were getting a lot of flak from the City.

That's right.

For that, you lost that one. And secondly, because they said you'd ramped up the debt, you're going to have to have, you're going to have to come to us for more money and if you come to us for more money, it'll dilute our shareholding. We don't like Vallance, he's got to go.

That's right. That was fair enough. That's what they were about.

And they got their scalp, didn't they?

Yeah, I suppose so. I mean I was probably reaching the time when I should have been leaving anyway, but they got their scalp. And I think poor old BT got the wrong strategy, at the same time.

[1:00:01]

So here's a company that was a PGT – just to go through it – privatised, liberalised, a lot of the areas of its monopoly being deliberately stripped away from it, and yet more than surviving, thriving, paying dividends, etc, etc, making then some strategic mistakes. And we have a completely different type of company in communications, a networking company.

Yeah.

Which is, which doesn't really care – this is my opinion sometimes – about the quality of the line, it isn't passionate about the fact that this has to work from end to end and to be fault-free, and people are quite happy to look at Skype and watch it all over the place and to have very poor, you know, very poor audio, which must drive the real telecommunication engineers bananas.

Well, I think it does. I mean the quality of performance demanded of a network in my time was in order of magnitude different from the quality of performance that would be expected in, say, a computer or a PC. You know, it was designed not to go wrong and maybe you can argue it's over-engineered, but I think at the end of the day, if you're using the networks, you'd be willing to pay for that. Nowadays Skype, but yep. Hm, you can still do it so much better than that if you want to. Now, where was I? No, you carry on and I'll... because there's something else I was going to mention, but I can't remember quite what it was.

[1:01:36]

That seems to me to constrict BT, in your time and today, from the more innovative parts of information technology, as we now call it.

I think it did. But some of that is to do with mobile, and of course we lost it because mobile went to O2, went to Spain, as it were. And mobile, of course, was the reason why we got into a pickle. That's the paradox of it. The reason why we got into trouble financially was – I touched on it earlier – that we needed to do everything in mobile by cash and not by stock. And the crunch came, we had a partnership in Germany before the number two mobile player in Germany and our partner wanted us to take them out, to take 100%, for BT, and they wanted to cash in. It was the electricity lot in Germany at that time. And we did it, and I was in the Chair at the time, but we did it and I don't in any sense want to absolve myself from responsibility because I was in the Chair, but that was the thing that cracked us financially and that was back to the old game that you have a P/E ratio which goes back into the old days, which is very low. The other thing, if I were looking at what I did wrong, it was – oh, maybe you want to come to that later.

No, do.

[1:03:17]

Okay, I'll give it to you now. I didn't court the City enough, personally. And, I mean that was not my background, the City, and I didn't have perhaps enough respect for what I might have called the bookies in suits, as I should have done. So that was dealt with by finance directors and not really by me. I was much more interested in the broader strategy that we could try to develop at that time, even though some of the things did not come right, some of them did come right, and we were on virgin territory, and I don't think I would have not done any of the things that I did do on the strategy, it was the best that we could do.

But it was that relationship with the City, courting the City?

Well, there were two things. I mean one was, relationship with government was not particularly good. It got better when Mrs Thatcher left, and the only reason I got a knighthood was because John Major personally stepped in and said, well, why hasn't he got one, because after all, he's been running our lead privatised organisation for a long while, that was personal. So it wasn't very good with the government for us at the time and it wasn't good with the media, partly because, you know, an individual cannot do particularly well with the media if the government isn't backing him.

[1:04:44]

You know the company Siemens from being on the supervisory board for so many years, why is that one of the premier engineering corporations in the world and it isn't General Electric Company, it isn't Plessey, it isn't Pye, it isn't Ferranti, it isn't Elliott Brothers, all of them dead.

Yeah. Well, I mean I sit on the Select Committee, Science and Technology, in the House of Lords and we've been looking recently at parts of the government's industrial strategy, and the question that comes up all the time is why is it that the UK has some of the very best science, technology and engineering capability in the world in its universities, and also one of the most advanced financial markets in the world, but we can't seem to put these things together to produce long lasting, brilliant engineering and technological companies. I think there are a number of facets to it.

One is the short termism of the UK markets, the financial markets. Engineering and science nearly always is long term. You have, you have a financial services market which is looking quarter by quarter and doesn't have the appetite for what's called patient capital. Whereas you will find patient capital big time in Germany. It's also that the status of engineers and scientists in the UK is significantly lower than it is in Germany. Now, this is back to the old twin culture thing, where the establishment in the UK is very much more [laughs] of my type. You know, it may have had English or Classics or whatever it was to begin with, but it doesn't have, it does not rate scientists or engineers in the same way as they would do in Germany. Which is a great pity. And one of the things that I would try to push for, and do now, is what I call bilingualists, which is to have people who are fluent, not just in scientific and technological language, but also in financial and commerce language. You'll find that in the States with venture capitalists who speak both languages, you don't really need to look at it in Germany because it is there as part of the fabric, it thinks longer term. Finance and industry in Siemens are more closely linked. And the third one is the *Mittelstand*, you know, that's the smaller, generally family owned supporting industries that feed into the big players like Siemens, and that's something which has been built up over years and years and years and years and years, which is not replicated here. And I think that's probably the difference, the three main differences between the two.

[1:07:59]

And will that be broken?

Well, the first bit of good news, if we can have it, is that the Treasury has been looking recently at patient capital, particularly releasing stuff which can't at the moment be invested by pension funds in longer term, potentially higher risk activities of the sort we're talking about. As to the bilingualism, well, there- one of the things I do at the moment is I chair the Edinburgh Business School, which is a separate charity within the ambit of Heriot-Watt University in Edinburgh. So the chances of getting bilingualism will come from that kind of environment where we will deliberately encourage scientists and engineers to do finance and commerce at the same time, with the crossover, rather than being taught in siloes as they tend to at the moment. Replicating the *Mittelstand*, you can't do. It's, it won't happen.

[1:09:04]

*Still looking to the future, thank you very much, Lord Vallance of Tummel in Perth
and Kinross.*

[recording ends at 1:09:11]